

BS030347

U.S. Application No. 10/720,949 Examiner SIKRI, Art Unit 2109
Response to February 28, 2007 Office Action

AMENDMENT TO THE CLAIMS

[c01] (Currently Amended) A method, comprising the steps of:

receiving a first data stream at a computer, the first data stream comprising packets of data packetized according to a packet protocol;

recursively segmenting the first data stream into segments, such that a characteristic of a preceding segment determines how a current segment is segmented;

recognizing a repetitive segment and inserting a data compression result of a preceding segment to reduce processing of redundant segments;

dispersing at least one of the segments via a network for a subsequent processing service;

receiving a result of the processing service;

aggregating the result of the processing service and an unprocessed segment into a second data stream; and

communicating the second data stream via the network.

[c02] (Currently Amended) A method according to claim 1, wherein ~~the step of~~ recursively segmenting the first data stream comprises observing a sequence of packets having a similar structure to a previous sequence of packets and segmenting the sequence of packets to have similar content to the previous sequence of packets using a characteristic of one segment to describe another segment.

[c03] (Currently Amended) A method according to claim 1, wherein ~~the step of~~ recursively segmenting the first data stream comprises using a chronological characteristic of ~~the~~ a preceding segment to describe the a current segment.

[c04] (Currently Amended) A method according to claim 1, further comprising replacing a complex segment with a common descriptor to produce an abbreviated annotation

BS030347

U.S. Application No. 10/720,949 Examiner SIKRI, Art Unit 2109
Response to February 28, 2007 Office Action

~~wherein the step of recursively segmenting the first data stream comprises mathematically describing a segment based upon a preceding segment.~~

- [c05] (Original) A method according to claim 1, further comprising accruing historical routing information for a segment, the historical routing information describing at least one destination of the segment as the segment travels via the network.
- [c06] (Original) A method according to claim 5, further comprising assembling the second data stream using the historical routing information for the segment.
- [c07] (Original) A method according to claim 1, further comprising accruing historical processing information for a segment, the historical processing information describing at least one process performed on the segment.
- [c08] (Original) A method according to claim 7, further comprising assembling the second data stream using the historical processing information for the segment.
- [c09] (Currently Amended) A method of providing communications services, comprising the steps of:
- receiving data at a computer, the data received as packets of data packetized according to a packet protocol;
 - recursively segmenting the packets of data into segments according to a segmentation profile stored in memory, the segmentation profile storing rules that define actions when a similar characteristic between segments is encountered, such that a characteristic of a preceding segment determines how a current segment is segmented;
 - dispersing at least one of the segments via a network for a subsequent processing service;
 - receiving results of the subsequent processing service; and

BS030347

U.S. Application No. 10/720,949 Examiner SIKRI, Art Unit 2109
Response to February 28, 2007 Office Action

assembling a data stream, the data stream comprising ~~at least one of~~ i) the results of the subsequent processing service and ii) an unprocessed recursively segmented segment.

- [c10] (Currently Amended) A method according to claim 9, further comprising ~~the step of~~ communicating the assembled data stream to a client communications device.
- [c11] (Currently Amended) A method according to claim 9, further comprising ~~the step of~~ receiving a request for the assembled data stream.
- [c12] (Currently Amended) A method according to claim 9, wherein ~~the step of~~ recursively segmenting the first data stream comprises using a chronological characteristic of one segment to describe another segment.
- [c13] (Currently Amended) A method according to claim 9, wherein ~~the step of~~ recursively segmenting the first data stream comprises recognizing a repetitive segment and inserting a data compression result of a preceding segment to reduce processing of redundant segments using a characteristic of a preceding segment to describe a current segment.
- [c14] (Currently Amended) A method according to claim 9, wherein ~~the step of~~ recursively segmenting the first data stream comprises observing a sequence of packets having a similar structure to a previous sequence of packets and segmenting the sequence of packets to have similar content to the previous sequence of packets mathematically describing a segment based upon a preceding segment.
- [c15] (Original) A method according to claim 9, further comprising accruing historical routing information for a segment, the historical routing information describing at least one destination of the segment as the segment travels via the network.

BS030347

U.S. Application No. 10/720,949 Examiner SIKRI, Art Unit 2109
Response to February 28, 2007 Office Action

- [c16] (Original) A method according to claim 15, further comprising assembling the second data stream using the historical routing information for the segment.
- [c17] (Original) A method according to claim 9, further comprising accruing historical processing information for a segment, the historical processing information describing at least one process performed on the segment.
- [c18] (Original) A method according to claim 17, further comprising assembling the second data stream using the historical processing information for the segment.
- [c19] (Currently Amended) A system, comprising:

means for receiving a first data stream at a computer, the first data stream comprising packets of data packetized according to a packet protocol;

means for recursively segmenting the first data stream into segments, such that a characteristic of a preceding segment determines how a current segment is segmented;

means for recognizing a repetitive segment and insert a data compression result of a preceding segment to reduce processing of redundant segments;

means for dispersing at least one of the segments via a network for a subsequent processing service;

means for receiving a result of the processing service;

means for aggregating the result of the processing service and an unprocessed segment into a second data stream; and

means for communicating the second data stream via the network

~~an Analysis Module stored in a memory device, the Analysis Module receiving data at a computer with the data received as packets of data packetized according to a packet protocol, the Analysis Module recursively segmenting the packets of data into segments according to a segmentation profile stored in memory, the Analysis Module dispersing at least one of the segments via a network for a subsequent processing service;~~

BS030347

U.S. Application No. 10/720,949 Examiner SIKRI, Art Unit 2109
Response to February 28, 2007 Office Action

~~the Analysis Module receiving results of the subsequent processing service and assembling a data stream, the data stream comprising at least one of i) the results of the subsequent processing service and ii) a recursively segmented segment; and a processor communicating with the memory device.~~

[c20] A computer program product comprising processor-executable instructions for, comprising:

receiving a first data stream at a computer, the first data stream comprising packets of data packetized according to a packet protocol;

recursively segmenting the first data stream into segments, such that a characteristic of a preceding segment determines how a current segment is segmented;

recognizing a repetitive segment and inserting a data compression result of a preceding segment to reduce processing of redundant segments;

dispersing at least one of the segments via a network for a subsequent processing service;

receiving a result of the processing service;

aggregating the result of the processing service and an unprocessed segment into a second data stream; and

communicating the second data stream via the network

~~a computer-readable medium; and~~

~~a Analysis Module stored on the computer-readable medium, the Analysis Module receiving data at a computer with the data received as packets of data packetized according to a packet protocol, the Analysis Module recursively segmenting the packets of data into segments according to a segmentation profile stored in memory, the Analysis Module dispersing at least one of the segments via a network for a subsequent processing service, the Analysis Module receiving results of the subsequent processing service and assembling a data stream, the data stream comprising at least one of i) the results of the subsequent processing service and ii) a recursively segmented segment.~~

BS030347

U.S. Application No. 10/720,949 Examiner SIKRI, Art Unit 2109
Response to February 28, 2007 Office Action

AMENDMENTS TO THE SPECIFICATION

- 1) Please amend the title as "Methods, Systems, and Products for Providing Recursively Segmented Communications Services."
- 2) Please replace the following paragraphs with these amended versions.

[0002] This application relates to the copending and the commonly assigned United States Application No. 10/720,941 ~~XX/XXX,XXX~~, entitled "Methods for Providing Communications Services" (Attorney Docket BS030006), filed concurrently herewith, and of which the "Brief Summary of the Invention" section and the "Detailed Description of the Invention" section are incorporated herein by reference.

[0003] This application relates to the copending and the commonly assigned United States Application No. 10/720,586 ~~XX/XXX,XXX~~, entitled "Methods for Providing Communications Services" (Attorney Docket BS030348), filed concurrently herewith, and of which the "Brief Summary of the Invention" section and the "Detailed Description of the Invention" section are incorporated herein by reference.

[0004] This application relates to the copending and the commonly assigned United States Application No. 10/720,800 ~~XX/XXX,XXX~~, entitled "Methods for Providing Communications Services" (Attorney Docket BS030349), filed concurrently herewith, and of which the "Brief Summary of the Invention" section and the "Detailed Description of the Invention" section are incorporated herein by reference.

[0005] This application relates to the copending and the commonly assigned United States Application No. 10/720,780 ~~XX/XXX,XXX~~, entitled "Methods for Providing Communications Services" (Attorney Docket BS030350), filed concurrently herewith, and of which the "Brief

BS030347

U.S. Application No. 10/720,949 Examiner SIKRI, Art Unit 2109
Response to February 28, 2007 Office Action

Summary of the Invention" section and the "Detailed Description of the Invention" section are incorporated herein by reference.

[0006] This application relates to the copending and the commonly assigned United States Application No. 10/720,956 ~~XX/XXX,XXX~~, entitled "Methods for Providing Communications Services" (Attorney Docket BS030351), filed concurrently herewith, and of which the "Brief Summary of the Invention" section and the "Detailed Description of the Invention" section are incorporated herein by reference.

[0007] This application relates to the copending and the commonly assigned United States Application No. 10/720,946 ~~XX/XXX,XXX~~, entitled "Methods for Providing Communications Services" (Attorney Docket BS030352), filed concurrently herewith, and of which the "Brief Summary of the Invention" section and the "Detailed Description of the Invention" section are incorporated herein by reference.

[0008] This application relates to the copending and the commonly assigned United States Application No. 10/720,587 ~~XX/XXX,XXX~~, entitled "Methods for Providing Communications Services" (Attorney Docket BS030353), filed concurrently herewith, and of which the "Brief Summary of the Invention" section and the "Detailed Description of the Invention" section are incorporated herein by reference.

[0009] This application relates to the copending and the commonly assigned United States Application No. 10/720,892 ~~XX/XXX,XXX~~, entitled "Methods for Providing Communications Services" (Attorney Docket BS030356), filed concurrently herewith, and of which the "Brief Summary of the Invention" section and the "Detailed Description of the Invention" section are incorporated herein by reference.